Compliance in the European Union.

A strategic analysis of the interaction between member states and the Commission in the implementation process of directives

Thomas König and Lars Mäder

University of Mannheim

Abstract

This study models (non-)compliance as a strategic interaction between implementing and monitoring actors, and evaluates the empirical implications of this model statistically. Applied to (non-)compliance in the European Union, our strategic analysis identifies compliance deficit as an outcome when the monitoring Commission is unable or unwilling to enforce implementation into domestic law. The statistical findings reveal that this deficit occurs when the interests of implementing member states are diverse. Our strategic analysis further reveals, that this effect is nonmonotonic, which is typical for strategic interaction. This might also explain why the monitoring Commission avoids such situations and therefore almost always wins before the European Court of Justice when it enforces implementation.
Transposition and enforcement in the implementation process

This article investigates the strategic interaction between the member states of the European Union (EU) and the Commission in the implementation process of directives, which is becoming an important issue in the compliance discussion about the crisis in Europe. Directives are important binding and enforceable legislative means, which the Commission proposes and member states adopt by compromise solutions after intense negotiations with the obligation to transpose them into domestic law (Thomson et al. 2006). Even though the member states have agreed on these outcomes and the institutional rules for imposing them, including the Commission’s enforcement ability to issue an infringement proceeding against a non-complying member state before the European Court of Justice, they may still have incentives to pursue their own interests in the implementation process of a directive at the expense of the compromise solution. This inherent problem of the implementation process, which is typical for situations with a monitoring actor and a group of cooperating actors, generates a complex strategic compliance game, in which purposive member states attempt to anticipate the ability and willingness of the Commission to sanction non-compliance.

Early on, the scholarly discussion about the reasons of (non-)compliance was influenced by two traditional schools of thought, with arguments focusing on country-specific capacity limitations from the management (Chayes and Chayes 1993, 1995) and purposive actors from the enforcement school of thought (Downs, Rocke, and Barsoom 1996). The empirical implications of these factors were separately studied when scholars either investigated the transposition behaviour of the member states (Bailey 2002; Berglund, Gange, and Waarden 2006; Borghetto, Franchino, and Giannetti 2006; Börzel 2000; Börzel et al. 2006; Bursen 2002; Duina 1997; Duina and Blithe 1999; Falkner et al. 2005; Haverland 2000; Haverland and Romeijn 2007; Hille and Knill 2006; Kaeding 2008; Knill and Lenschow 1998; König and Luetgert 2009; Lampinen and Uusikyla 1998; Luetgert and Dannwolf 2009; Mastenbroek 2003; Mastenbroek and van Keulen 2006; Steunenberg 2006; Steunenberg and Toshkov 2009;
or the enforcement activities by the Commission (Börzel 2001, 2002; Falkner, Hartlapp, and Treib 2004; Giuliani 2003; Jensen 2007; Mbaye 2001; Perkins and Neumayer 2007; Sedelmeier 2008). More recently, Thomson, Torenvlied, and Arregui (2007) have drawn the attention to the impact of factors related to the prior negotiation stage on the transposition and the enforcement stage of directives.¹

In this study, we go one step further by integrating the transposition decision of the member states into a single strategic model that accounts for the Commission’s decision to enforce compliance by infringement proceedings. More generally, our strategic model postulates that compliance is determined by the probability for enforcement success and the level of sanctioning costs, which we approximate by a cooperating actor’s utility loss. A major advantage of our model is that we can identify and evaluate non-observed compliance outcomes, i.e. when the Commission is unable or not willing to pursue a non-compliance case (McKelvey and Palfrey 1995). This is particularly relevant for our understanding of compliance when the decision of the member states to transpose a directive is influenced by the anticipation of the monitoring Commission’s enforcement decision. Theoretically, enforcement scholars hypothesize that the likelihood of non-compliance increases with the distance between the actors’ ideal positions and the final outcome. However, when the diversity of the member states’ distances to this outcome reaches a certain point where the Commission fails to find enough support from other member states, our strategic model predicts that the monitoring actor will refrain from initiating an infringement proceeding because the likelihood for successful enforcement declines. We will resonate this set up of our

¹ The study of Thomson, Torenvlied, and Arregui (2007) also separately explains non-compliance in terms of either the number of infringement proceedings or transposition delays by the preferences of the member states and their discretion granted to them by each directive.
model by following the logic of Carrubba (2005) which we complement by private information and conceive their decisions as part of a single implementation process.

In addition to modeling the implementation process as a strategic interaction between the implementing member states and the monitoring Commission, we also present a novel dataset on 299 cases of (non-)compliance with directives, taking into account (in-)correct transposition of directives into domestic law. We believe that our data generation process of (in-)correct transposition is more generally relevant for compliance research because it allows a substantial evaluation of implementation activities in a large number of countries. For the evaluation of the empirical implications of our strategic model we follow Signorino (1999, 2003) and apply a quantal response equilibrium (QRE) model, originally developed by McKelvey and Palfrey (1995), to these data. To our knowledge, most previous applications of QRE models used estimates generated by experimental design. When the payoffs are fixed and known in the laboratory, QRE estimates the variability of perceptual errors of the actors.

In contrast to QRE analyses of experimental data, we use average utilities that are estimated using observational data for exemplifying the bias of outcome probabilities and associated parameter estimates under misspecification. Wang (2006) shows that the key element of those models is determined by the configuration of actors’ preferences.

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2 Because QRE models are based on individuals (or their “agents”) making random perceptual errors each time they face a decision, they were originally applied to experiments where participants knew the fixed payoffs to the game but nonetheless made stochastic choices (McKelvey and Palfrey 1995). Quinn and Westveld (2004) have provided a method for relaxing parametric assumptions about the distribution of errors in QRE models. Signorino (2003) proposes a pair of models. The first is an alternative agent-like theory where individuals do not make perceptual errors, but rather information is revealed to individuals when they face a decision. The second is a regressor error model based on a game where actors know each others’ type, but limited information about actor types is available to a researcher observing the game.
The results suggest that the compliance outcomes of this strategic interaction can be explained by the probability of success of each type of actor and their relative sanctioning costs. More precisely, while we confirm previous findings on the preference-based incentives of a member state to comply with a directive, our analysis reveals that the Commission’s enforcement decision is significantly influenced by the preference diversity of the member states and the Commission’s saliency on these directives. Under these conditions, we identify a compliance deficit in the EU when the Commission is not able or not willing to enforce directives. This finding might have important ramifications for the discussion about compliance in the EU, which is evolving during the current financial and debt crisis. Instead of only restructuring the debts of the member states, our analysis suggests a deeper discussion about the institutional conditions of the implementation process. In particular, we propose to ask for a more transparent notification of transposition activities, which should indicate the correctness of the implementation process of a directive into domestic law and facilitate to detect non-compliance.

This article is structured in three further sections. The first section motivates our strategic perspective by the procedural provisions of the transposition and enforcement stages. With respect to these stages, we develop a game-theoretical compliance model on the strategic interaction between the two types of actors. We derive testable hypotheses on the factors which we expect to influence the transposition decisions of the member states and the enforcement decisions of the Commission. In the second section, we present the data generation of our dependent variable and explain how we evaluate the empirical implications of our hypotheses on a sample of 299 (non-)compliance cases. The last section provides a substantial discussion of our findings on the probability of transposition and enforcement. We summarize our findings and conclude with suggestions for further research.

A strategic model of the two-stage implementation process
Theoretically, the likelihood for strategic interaction increases when mutually dependent actors pursue different interests, have incomplete information and take decisions over more than one procedural stage. Under these circumstances, actors attempt to anticipate the reactions and decisions of other actors in subsequent stages in order to optimize their own decision in the present stage. During the implementation process of directives, member states first have to transpose directives into domestic law in a correct and timely manner, before the Commission scrutinizes their activities and decides whether to enforce compliance by initiating an infringement proceeding. Because member states are only required to notify their transposition activities without indicating whether they have correctly completed this process, the Commission usually starts a stepwise infringement proceeding by firstly writing a formal letter, secondly sending a reasoned opinion which gives a legal justification and defines a deadline after which the Commission may take further legal action by a referral to the European Court of Justice.

Even though this process establishes several interdependent transposition and enforcement decisions, the current literature has separately investigated the transposition of directives from their enforcement stage. Enforcement is conventionally studied by the number of infringement proceedings, which indicates when and to what extent the Commission has made enforcement decisions. Transposition scholars investigate the transposition process into domestic law, which lists when and to what extent member states notify their transposition instruments. A good example is the recent analysis of Thomson, Torenvlied, and Arregui (2007), which points to the relationship between the prior negotiation of directives and their domestic transposition stage by separately evaluating the factors for transposition delays and infringement proceedings (Thomson, Torenvlied, and Arregui 2007). Because the decision to transpose a directive can also be influenced by the anticipated decision of the Commission to

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3 For a more detailed discussion of these notifications, see König and Luetgert (2009).
enforce compliance, we propose to integrate the decisions of these two stages into a single model. The model postulates a strategic interaction between the transposing member states and the enforcing Commission conditional on the costs of sanctioning and the probability for enforcement success in the event of a compliance conflict.

The game-theoretical model

Following McLean and Whang (2010), we model the strategic interaction between the member states’ transposition decision and the enforcement decision of the Commission as a stylized two-actor game. Figure 1 displays the structure of this game, which starts with a member state’s decision whether to correctly and timely transpose a directive into domestic law, or, to defect by non-transposition or incorrect transposition (Comp, ~Comp). If a member state correctly transposes the directive within the prescribed time period, there is no potential conflict with the Commission, which has to safeguard the smooth functioning of the legal system of the EU. While the Commission receives the highest payoff with a value of 1 in this case, the complying member state accepts the directive’s outcome which has been adopted at the prior negotiation stage. Consequently, the member state does not gain additional benefits but avoids any sanctioning costs from the Commission, meaning that its utility losses are set equal to 0. If the member state decides not to comply with the directive, the enforcement threat of the Commission to sanction non-compliance has failed at this stage and the Commission needs to decide whether or not to take action.

This first stage of the game is equivalent to the design of transposition studies, which distinguish between (correct and timely) transposition and non-transposition (König and Luetgert 2009; Thomson, Torenvlied, and Arregui 2007). Our model further includes a second
stage in which the Commission decides whether to issue an infringement proceeding against a non-compliant member state by means of a reasoned opinion (RO, ~RO). If the Commission takes action by filing a reasoned opinion, it attempts to enforce the directive by putting pressure on the non-complying member state. This can lead to a compliance conflict between the Commission and the non-complying member state, in which the non-complying member state succeeds with the probability of $p$ and the Commission with $1 - p$. In this conflict, the Commission’s payoff for enforcement is $p \times 0 + (1 - p) \times 1 - C_{\text{com}} = (1 - p) - C_{\text{com}}$ where $1 - p$ is the Commission’s probability of success and $C_{\text{com}}$ the costs of sanctioning. When the Commission decides to enforce a directive by taking action against a member state, the member state can win this conflict with probability of $p$, but it may have to bear the sanctioning costs from the Commission $C_{MS}$. Hence, the non-complying member state’s payoff for enforcement is $p \times 1 + (1 - p) \times 0 - C_{MS} = p - C_{MS}$. However, if the Commission decides not to initiate an infringement proceeding, a compliance deficit exists and the failure of the non-complying member state remains without sanctions. In this case, the non-complying member state receives the highest payoff of value 1 and the Commission’s payoff is 0, although it saves sanctioning costs. Note that a compliance deficit is usually ignored by infringement studies, which assume that the infringements statistics cover all cases of non-compliance. Table 1 summarizes the actors’ actions and compliance outcomes.

Table 1 about here

This game, which controls for a selection process by the monitoring Commission, distinguishes four actions (Comp, ~Comp, RO, ~RO) and three compliance outcomes, (1) a smooth implementation process of a directive (Transposition), (2) the enforcement of a directive by the Commission (Enforcement) and (3) the non-enforcement of an incompletely transposed directive by the Commission (Deficit). The actions of each member state and of
the Commission depend on their evaluation of their probability of conflict success \((p, 1−p)\) and the sanctioning costs for each actor type \((C_{MS}, C_{com})\). Hence, we should only observe enforcement by the Commission when \(p < 1 − C_{Com}\) and \(p \geq C_{MS}\), i.e. when the costs of sanctions are sufficiently low relative to the expected success of the Commission in the event of a conflict with a non-complying member state. But when the costs are high, the member state will comply and transpose the directive in light of a high probability for Commission conflict success or the Commission will avoid a conflict with the non-complying member state.

**The Statistical Model**

The game-theoretical model assigns probabilities to the three compliance outcomes transposition, enforcement and deficit, which result from the two types of actors’ expectations for the costs and benefits of their interdependent decisions in the implementation process. To evaluate the empirical implications of their strategic interaction, we follow Signorino (1999, 2003) and apply a structural estimation model based on the probabilities of the implementation game (for specification of payoffs and utilities, see appendix). The equilibrium probabilities represent the strategic interaction with uncertainties between the member states and the Commission in the extended form game depicted in Figure 2.

*Figure 2 about here*

From the structure of the game, which assumes utility maximizing behavior of the two types of actors and independence between probabilities for compliance outcomes, we can predict the equilibrium choices of an actor where the probability for each compliance outcome is
directly determined by the action probabilities along the game path. Thus, the compliance outcomes are defined as:

\[
P_{\text{Transposition}} = p_{\text{comp}} \\
P_{\text{Enforcement}} = p_{\text{~comp}} \times p_{\text{RO}} \\
P_{\text{Deficit}} = p_{\text{~comp}} \times p_{\text{~RO}}
\]

where \(P_{\text{Transposition}}, P_{\text{Enforcement}}\) and \(P_{\text{Deficit}}\) define the probabilities for transposition, compliance deficit and enforcement. Accordingly, we translate the equilibrium-based strategic model into a statistical (probabilistic) model, which we employ for our statistical estimation.

\[\text{Figure 3 about here}\]

Figure 3 illustrates the general specification of the actor’s utilities in terms of regressors, i.e. their utilities with our explanatory variables. We estimate a member state’s utility for transposition as a linear function \(X_{11} \beta_{11}\), where \(\beta_{11}\) is a vector of coefficients to be estimated. The observed utility of the member states for a conflict with the Commission \(U_{MS}(\text{Enforcement})\) is estimated as a linear function \(X_{13} \beta_{13}\) and the observed utility of a member state for the Commission’s inaction \(U_{MS}(\text{Deficit})\) as a constant \(\beta_{14}\). The Commission’s utility for non-enforcement is normalized to zero and its utility for enforcement is defined as a linear function \(X_{23} \beta_{23}\) of explanatory variables. In line with Signorino and Tarar (2006), we use the equilibrium compliance outcome probabilities of \(P_{\text{Transposition}}, P_{\text{Enforcement}}\) and \(P_{\text{Deficit}}\) as the basis for the maximum likelihood estimation. The log-likelihood to be maximized with the explanatory variables (\(\beta\)) is defined as:
\[
\ln L = \sum_{i=1}^{N} \left[ y^{\text{transposition},i} \ln p^{\text{transposition},i} + y^{\text{enforcement},i} \ln p^{\text{enforcement},i} \right. \\
\left. + y^{\text{deficit},i} \ln p^{\text{deficit},i} \right]
\]

where \( y^{\text{transposition},i} = 1 \) if the strategic game in situation \( i \) leads to transposition, \( y^{\text{enforcement},i} = 1 \) if it results in a compliance deficit, and \( y^{\text{deficit},i} = 1 \) if the directive is enforced by the Commission.

**Data and empirical evaluation**

*The dependent variables*

One of the major challenges for the evaluation of the empirical implications of strategic models concerns data generation on actors’ utilities and behavior. For measuring utilities, we follow the spatial design of previous studies (Thomson, Torenvlied, and Arregui 2007; Zhelyazkova and Torenvlied 2009) using estimators for the issue-specific distances between the directive’s outcome and the ideal positions of the member states and the Commission from the DEU dataset (Thomson et al. 2006). The original aim of the DEU research project was to compare the explanatory power of different decision-making theories by a set of contested cases, whereby experts were asked to place the member states and the Commission at issue-specific distance scales ranging from 0 to 100.\(^4\) Tests of the cross-validity of these positions and outcomes confirmed their robustness (König and Proksch 2006; Thomson and Torenvlied 2011). In addition, these experts also indicated actors’ saliency concerning every contested issue. This procedure generated information on actors’ issue-specific utilities for the transposition of 21 directives.

\(^4\) For a more detailed description of the used DEU dataset and the applied data collection method please see Thomson and Stokman (2006).
For measuring actors’ behavior in the implementation process of these 21 directives, we additionally gathered information on their issue-specific transposition activities by a computerized keyword search, which we conducted in every transposition document of each member state. We tagged the sentences in these documents that were related to the transposition of an issue and asked legal scholars from the respective countries to evaluate correct and timely transposition of the sometimes overlapping issue-specific formulations (For more detail, see König and Mäder (2009)). This procedure generated a dataset of 299 cases where the member states transposed 21 directives correctly and in due time in 195 cases. In the remaining 104 cases, the member states failed to comply, but the Commission enforced their transposition by filing an infringement proceeding against the respective member states in 85 cases.

These data provide a very detailed picture on compliance with directives. Only two directives were correctly and timely transposed by all member states with country-specific variation of enforced and non-enforced compliance by the Commission. We also find that all member states failed to comply at least three times by either incorrect or delayed transposition. With twelve defections Portugal has the poorest compliance record followed by Belgium, France, Ireland, and Luxembourg, all with compliance failures for nine directives. In contrast to this group, Denmark and Finland, with only three defections, have a much better record. On closer inspection, there is considerable variation for the Commission’s enforcement decisions across the member states. Figure 4 illustrates the size of defection by each country and the number of

Due to inconsistencies and missing data regarding the information on the infringement procedures issued by the Commission we were required to delete 15 cases from our original 314 cases. An example of missing data on the Commission infringement procedure would be the case of the implementation directive 2002/7/EC in Spain. Here our collected infringement record shows that the Commission issued a ‘Reasoned Opinion’ against Spain although, according to our dataset, the Spanish government did not receive a ‘Letter of Formal Notice’.
enforced and non-enforced cases.

*Figure 4 about here*

Figure 4 reveals that Portugal, Luxembourg and Ireland belong to a group of countries with poor transposition record for which the Commission, despite strong enforcement activities, is not able to prevent from compliance deficits. Opposed to this group there are countries like Finland and Austria (and to some extent Spain and Germany) with a good record, corresponding or little more enforcement activities of the Commission and little or no compliance deficits. From these two groups, we can distinguish countries like Greece, France, Italy with a very poor record, but where the frequent enforcement activities of the Commission help to avoid compliance deficits Surprisingly, the few defections in Denmark and Sweden hardly attract the attention of the Commission, which produces a similar level of compliance deficit than in Portugal.

*The independent variables*

For evaluating the empirical implications of our strategic game for the different compliance outcomes, we must assign regressors to the utilities of both types of actors with regard to the two main terms: the probability of conflict success ($p$) and the costs of sanctioning ($c$). For measuring sanctioning costs ($c$) in the enforcement stage, we argue that even though member states adopt directives when there is a winset, they can still pursue own interests in the implementation process. When the winset is sufficiently large because the directive consists of multiple issues and/or is decided by a qualified majority of the member states (instead of unanimity), we assume that a member state is more willing to bear the costs of sanctions when its level of disagreement is high. This disagreement is indicated by the member state’s distance between its most preferred policy and the final outcome of a directive (Thomson
In other words, member states with a high level of disagreement will regard sanctioning costs as sufficiently low relative to their expected gains from a conflict with the Commission. For the Commission, this perspective suggests that the Commission is more likely to enforce a directive when the Commission’s distance to the directive’s outcome is small. The gains from this enforcement decision should increase with the Commission’s level of agreement on the one side, while the costs of sanctions should decrease vice versa. Consequently, we expect a positive relationship between the level of a member state’s and the Commission’s (dis-)agreement and their utilities for enforcement. In order to specify the cost term of the strategic game we also consider the saliencies that both types of actors attach to a directive. We assume that the relative costs of sanctioning decrease with their saliency and therefore expect a negative relationship between member states’ and the Commission’s saliency and their utilities for enforcement.7

Regarding the probability of conflict success (p) in the enforcement stage, we argue that the size of a directive’s winset is determined by the preference diversity of the member states, which influences the likelihood for coalition building to enforce compliance. When the size of the winset is small because almost all member states and the Commission pursue the same interest in a directive, the likelihood for a grand enforcement coalition increases. This should raise the enforcement utility of the Commission and reduce the enforcement utility of the

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6 We follow this literature and measure the level of (dis-)agreement as the sum of each actor’s absolute distance to the outcome of a directive. We coded the few missing values on the level of disagreement for a member state as zero and the Commission’s agreement as 100, expressing their indifference with outcomes.

7 Similar to the used measure of (dis-)agreement, we summed the issue-specific saliency measures in the DEU dataset for each actor and for each directive.
In contrast, when the size of the winset is very large because member states have diverse interests in a directive, the size of the enforcement coalition will decrease.\(^8\)

In addition to these variables, by which we specify the two main terms of our strategic game, we include four control variables. Regarding the member states’ enforcement utility we include a measure of discretionary power by the number of issues contained in each directive, which should negatively influence the enforcement utility of a member state. As the room to maneuver increases for a member state through additional discretionary power, the transposition should also become easier. We also use a dummy variable in the Commission’s enforcement utility when the directive contains an issue concerned with the deadline for transposition. Because cases of late transposition are much easier to detect than cases of incorrect transposition, we assume that an explicit reference to the deadline increases the enforcement utility of the Commission (Börzel 2001). Furthermore, we also expect that the type of directive affects transposition. Directives, which are adopted by the Council and the European Parliament, should constitute a more complex policy compromise than those, which are decided by the Council alone (Ciavarini Azzi 2000; Mastenbroek 2003). Thus, these directives should increase the member state’s utility for enforcement, while the Commission’s enforcement utility increases with a broader legitimization of directives. Hence, the likelihood of non-compliance by the member states and enforcement by the Commission should be higher for directives of the Council and the European Parliament than for Council directives.

\(^8\) McCubbins, Noll, and Weingast (1987) also find that conflict between major legislators leads to ‘preference-induced discretion’ for the implementers of a policy. For this argument also see Torenvlied (2000).

\(^9\) Following Zhelyazkova and Torenvlied (2009) we measure this diversity by the sum of the standard deviations of all member states’ most preferred outcome for the issues of each directive.
alone. Finally, we take into account the influence of domestic interest group patterns in each member state by using Lijphart’s index of interest group pluralism, where high values indicate a relative low influence of domestic interest groups (Lijphart 1999). According to Dai (2005), powerful interest groups may constitute a domestic mechanism of compliance. Thus, we expect that our measure of interest group influence has a positive effect on a member state’s and the Commission’s enforcement utilities. For member states with low influence of interest groups the likelihood of a member state’s non-compliance and the Commission’s enforcement decision should increase.

For the transposition outcome, we can fix the value of the member states with zero and of the Commission with one in accordance with our theoretical discussion. Hence, we expect that only directive- and country-specific characteristics such as the complexity of a directive, the delegation ratio to a member state and its level of bureaucratic efficiency matter for this compliance outcome. This expectation is in line with existing research where scholars have argued that the likelihood of non-compliance increases with the complexity of a directive (Falkner et al. 2005; Mastenbroek 2003). In our strategic game complexity affects the two types of actors in the following way: the Commission has more difficulties to scrutinize complex directives and the member states more leverage for interpreting complex directives. Furthermore, Franchino (2004) reports that directives typically delegate more power to the member states in those areas where the link between policy and outcome is uncertain. Thus, the level of the delegated transposition authority should be associated with a higher risk of non-compliance (Thomson, Torenvlied, and Arregui 2007; Zhelyazkova and Torenvlied 2009). For scholars from the management school of thought, member states with high administrative capacity face lower transposition constraints (Falkner et al. 2005; Kaufmann, Kraay, and Mastruzzi 2006; Mbaye 2001; Pridham 1994; Thomson, Torenvlied, and Arregui 2007). Because they can own more administrative resources for coping with the transposition requirements, the likelihood for non-compliance is lower. Table 2 provides a detailed
summary of our main explanatory and control variables with some explorative statistics.

Table 2 about here

**Empirical Analysis**

We test the empirical implications of our theoretical expectations on compliance outcomes, which we derived from the strategic game between the Commission and the member states. In order to provide a unified analysis of compliance with directives and to capture strategic interaction, we adopt the general QRE estimation approach of Signorino (1999, 2003). Although the observed data reveals a skewed distribution of compliance outcomes with about 65% transposition, 29% enforcement and 6% deficit cases, our strategic model has a relatively high fit with over 71% correctly predicted compliance. On closer inspection of these compliance outcomes, we correctly predict more than 86% of the 195 cases, while we overestimate their transposition behavior vis-à-vis enforcement (48%) and compliance deficit (21%). A reasonable explanation for the lower predictive power of the enforcement decision is that the Commission is less able to detect incorrect transposition, while it mainly responds to late transposition and non-notification.\(^{10}\) Table 3 reports the estimates of the four utility

\(^{10}\) Even though a direct comparison of the model fit between our strategic and standard probit models (estimates of these models are not shown here) is difficult and seems to be in favour of the standard probit models – since these models need to predict only two in contrast to three outcomes – our strategic model possess an equal high model fit. Regarding the prediction sensitivity of the models, our strategic model for the enforcement outcome even outperforms the standard probit model with 48% to 24% correct predicted enforcement cases, while it shows equal high prediction sensitivity for the transposition outcome with 86% to 85%.
functions as specified in Figure 3. These coefficients are estimated simultaneously as part of a unified model of strategic interaction between the member states and the Commission.\textsuperscript{11}

\textit{Table 3 about here}

According to the estimates of our strategic model, we find that the member states’ compliance decision is mainly influenced by (dis-)agreement and directive-specific features such as complexity, delegation ratio, level of discretion and type of directive. We also find that the diversity of member states’ interests, the Commission’s saliency and the influence of domestic interest groups significantly affect the enforcement decision of the Commission. Our estimates of the member states’ enforcement utility confirm existing findings of transposition studies. Member states are more likely to defect when they disagree with a directive. The results further reveal that the member states’ enforcement utility is higher for Council & EP directives than for directives decided solely by the Council. Furthermore, a member state’s utility for conflict with the Commission significantly decreases with the level of discretionary power. All other variables, such as the diversity of their preferences and saliency for the directive have no statistically significant effect on the member states’ enforcement utility.

Confirming our expectation, the Commission’s enforcement decision is significantly influenced by the probability of success and the associated costs of sanctioning. In the event of preference diversity among the member states, the Commission has difficulty finding enough support for enforcement by other member states. This decreases the Commission’s

\textsuperscript{11} Column 1 of Table 3 displays the estimate ($\hat{\beta}_{13}$) for the member states’ enforcement utility, column 2 the member states’ utility for a compliance deficit ($\hat{\beta}_{14}$), column 3 the Commission’s enforcement utility ($\hat{\beta}_{24}$) and the last column the member state’s transposition utility ($\hat{\beta}_{11}$) with standard errors in parenthesis.
enforcement utility, and hence decreases the probability of filing a reasoned opinion.
Likewise, the Commission is only willing to bear the cost of sanctioning when its saliency for
the respective directive is high.

The transposition utility of the member states is significantly affected by two directive-
specific factors, (1) the complexity of the directive and (2) the delegation ratio of
transposition authority of the directive. This utility decreases with complexity and level of
delegation ratio. Hence, member states are less likely to comply with very long and complex
directives, which delegate substantial transposition duties to their domestic administrations.
However, the results suggest that the efficiency level of their administration has no significant
effect on their decision. At first sight, this appears to contradict the management school of
thought, but the coefficient indicates that the transposition utility of the member states still
increases with the efficiency of their administration.

For a more substantial interpretation of our findings, we take a closer look at the marginal
effects of our independent variables – i.e. the change in the estimated probabilities of the
outcomes as the values of the explanatory variables change. According to our findings, the
member states’ decision to transpose directives not only depends on their own transposition
utility but also on the Commission’s enforcement utility. Member states comply if and only if
their true expected utility for non-compliance is greater than their true expected utility for
transposition, which means that $p_{RO} U^*_{MS}(\text{Enforcement}) - p_{RO} U^*_{MS}(\text{Deficit}) > 
U^*_{MS}(\text{Transposition})$. It is important to note that this is a function of the explanatory
variables in the Commission’s enforcement utility because these variables affect not only the
Commission’s enforcement decision but also indirectly the transposition decision of the
member states. Compared to the variables that only have an indirect effect on the member
states’ decision because they only reflect the Commission’s utility, the variables that enter in
both the member states and Commission’s utilities have a direct and an indirect effect.
For the substantial interpretation of our main theoretical arguments, we plot the probability of enforcement and compliance deficit as a function of the diversity of member states’ preferences, their disagreement, and the level of the Commission’s saliency, while holding the other independent variables fixed at their low (dashed lines), mean (solid lines) and moderate (dotted lines) values.

Figure 5 a-f about here

Figure 5a displays the effect of the diversity of member states’ preferences on the probability of enforcement where an increase in diversity is associated (1) with a decrease in the utility of the Commission for enforcement, making it less likely to enforce it, and (2) with an increase in the member state’s utility for enforcement, making them more likely not to comply and to risk an enforcement decision by the Commission. Diversity, as revealed by Figure 5a, has a non-monotonic effect on the probability of enforcement. Considering the moderate scenario (dotted line), an increase in the diversity of member states’ preferences only for average to high values leads to a decrease in the probability of enforcement. In other words, in cases of a homogeneous preference constellation in the Council, where a large group of member states supports a directive, the departure of only few member states from this common position increases the likelihood of enforcement. In such cases, the Commission still perceives to have considerable support for its enforcement decision among the member states and thus will not hesitate to take action against a non-complying member state. However, the more member states depart from a common position, the Commission will find less support for its enforcement decision and the likelihood of enforcement decreases.

Compared to Figure 5a, Figure 5b shows a strict monotonic relationship between the diversity of member states’ preferences and the probability of a compliance deficit. Here, an increase in the diversity is always associated with an increase in the probability of a deficit. This is an
intuitive result, as an increase in diversity always favors the non-complying member state and always decreases the chance of a strict enforcement decision by the Commission, even in cases where non-complying behavior is detected. However, the point at which this effect becomes visible mainly depends on the values at which the other variables are held constant. This effect is largest when we hold all other values at their moderate value (dotted lines), while an increase in the probability of a compliance deficit is visible earlier for the low value line (dashed line), followed by the mean value line (solid line), and the moderate line (dashed line).

Figures 5c and 5d show the relationship between the member state’s disagreement and the probability of enforcement and compliance deficit. Here, an increase in level of a member state’s disagreement is always associated with an increase in the probability of enforcement or compliance deficit. According to Figure 5d, however, the level of a member state’s disagreement has only a weak effect on the probability of compliance deficit for low and mean values of the other variables, while it is absent in case of moderate values. This finding confirms the results of existing studies, which have pointed to the negative effect of a member state’s disagreement for compliance (Falkner, Hartlapp, and Treib 2004; Thomson, Torenvlied, and Arregui 2007; Zhelyazkova and Torenvlied 2009).

Similar to this effect of a member state’s disagreement is the relationship between the Commission’s saliency and the probability of enforcement and compliance deficit. Accordingly, an increase in the Commission’s saliency is always associated with an increase in the probability of enforcement. Again, the point at which the effect is visible depends on

12 These results are in sharp contrast to the findings of a study conducted by (Zhelyazkova and Torenvlied 2009) According to their findings the polarization of member states’ interests should have a strict negative, monotonic effect on transposition delay, i.e. it should speed up the domestic transposition processes, and therefore should decrease the likelihood of enforcement and compliance deficit.
the values at which the other variables are held constant. The dotted line (moderate values) reaches the highest probability level of enforcement, but it starts to increase much later than the solid (mean values) and the dashed (low values) lines. Finally, a strict decreasing effect of Commission’s saliency is visible for the probability of a compliance deficit. For directives associated with high levels of saliency, the likelihood that the Commission ignores cases of non-compliance is near zero.

Conclusion

Why do cooperating actors sometimes fail to comply with outcomes, which they have negotiated and which they are obliged to implement? And what about monitoring actors which can sanction non-complying actors? In addition to the preference-related incentives of the actors, a major reason for compliance is the monitoring Commission’s willingness or ability to enforce transposition. Even if member states disagree with a directive and have therefore an incentive for non-compliance, we find that a salient Commission is able to enforce transposition when member states do not pursue diverse interests. However, our analysis also reveals that the Commission cannot always overcome compliance deficits generated particularly by incorrect transposition. In this vein, more discretion for the member states reduces the probability of a conflict with the Commission but can also promote non-compliance.

What is the role of the monitoring actor in this process? The Commission is an important monitoring actor in this strategic game, but it is not able to guarantee compliance. A prominent example refers to the diversity of member states’ interests in enforcing the so-called Maastricht criteria, on which they had agreed for a common currency in the stability and growth pact. Because Germany and France were opposed to enforce these criteria in 2004, the Commission refrained from sanctioning non-complying members. Today, this weakening of the Maastricht criteria is made responsible for the current financial and debt
crisis in Europe. The more typical situation for the Commission can be illustrated by the directive 2001/55/EC which regulates the temporal protection for asylum seekers by a mandatory period of two years with a possible extension of one extra year for refugees from armed conflicts. Even though Germany did not transpose this directive on time – which promptly led to a formal letter by the Commission –, the transposition was completed later on by explicitly referring to the directive’s goals in the German 2004 immigration law. Compared to Germany, Austria notified timely transposition with the 2002 amendment of the 1997 foreign law (BGBl. 126/2002), but this amendment fails to transpose the directive because it only delegates the definition of the protection length to a parliamentary committee. This interpretation did not lead to an infringement proceeding against Austria by the Commission and evidences the outcome of a compliance deficit.

Our keyword search can help to identify this kind of compliance deficit even in the more typical situation and generate data, which allows for an empirical evaluation of strategic interaction on compliance. We find that member states most often do not transpose directives on time, while they only rarely fail to comply by means of incorrect transposition. Our empirical analysis also reveals that Austria had incentives for incorrect transposition of the Asylum directive and the Commission did not intervene against this interpretation because the member states were split. A major reason for compliance is accordingly the willingness or ability of the Commission to enforce directives, which is also determined by the diversity of the member states’ preferences. When the member states pursue diverse interests, the Commission is less likely to take action. One reason could be that very hotly debated issues are often adopted in an open, consultative manner with more discretion, which is difficult to pursue in an infringement proceeding. Another reason could be that the Commission avoids entering into situations of member state diversity which would harm its reputation as an independent monitoring actor.
Finally, we believe that our approach and results recommend to consider the strategic nature of the implementation game, played between a monitoring actor like the Commission and a group of cooperating actors like the member states, in order to avoid misspecifications and to detect non-monotonic effects of one’s independent variables. The observed compliance deficit reminds us that cooperating actors may have still incentives to pursue own interests even if they have negotiated and adopted an outcome, which they are obliged to transpose into domestic law. This exercise also fails when the monitoring actor has a relatively low saliency in enforcing compliance and when a non-complying actor expects to win a compliance conflict with the monitoring actor. One reason – as our analysis has shown – is the complexity and type of cooperation. A further reason is that member states can continue with notifying their transposition activities without indicating whether this process has been completed. In our view, a simple indication of this completion could alter the structure of the game and lead to a higher level of compliance.
Appendix (will be made available on-line)

Payoffs

Assuming that the true utility of an actor for an outcome consists of both an observable and an unobservable component, we define the Commission’s utility of enforcement as

\[ U_{\text{com}}(\text{Enforcement}) = U_d(\text{Enforcement}) + \pi_{d3} \]

where \( U_{\text{com}}(\text{Enforcement}) \) is the Commission’s true utility for a conflict with a member state, \( U_d(\text{Enforcement}) \) the observable component and \( \pi_{d3} \) the unobservable component respectively the private information known only by the Commission itself. From the perspective of the member state, \( \pi_{d4} \) is a random variable with a known distribution. Under the condition that the error terms \( \pi_{ij} \) are distributed independently and identically with mean 0 and variance \( \sigma^2 \) and that the actors maximize their true (expected) utilities at each decision stage, we can derive the strategic probit choice probabilities for the enforcement model by

\[
p_{\text{RO}} = \Phi \left[ \frac{U_{\text{com}}(\text{Enforcement}) - U_{\text{com}}(\text{Deficit})}{\sqrt{2\sigma^2}} \right]
\]

\[
p_{\text{-comp}} = \Phi \left[ \frac{p_{\text{RO}} U_{\text{ms}}(\text{Enforcement}) - p_{\text{-RO}} U_{\text{ms}}(\text{Deficit}) - U_{\text{ms}}(\text{Implementation})}{\sqrt{\sigma^2(1 + p_{\text{RO}} + p_{\text{-RO}})}} \right]
\]

where \( \Phi() \) is the standard normal cumulative distribution. \( p_{\text{RO}} \) is the probability that the Commission enforces the goals of a directive by issuing an infringement proceeding respectively filing a reasoned opinion against a non-complying member state, while \( p_{\text{-comp}} \) is the probability that a member state does not comply with the directive. \( p_{\text{-RO}} \) and \( p_{\text{comp}} \) denote the probability that the Commission will not enforce and the member state will transpose the directive correctly. These probabilities are the counterparts of \( p_{\text{RO}} \) and \( p_{\text{-comp}} \), denoted as \( p_{\text{-RO}} = 1 - p_{\text{RO}} \) and \( p_{\text{comp}} = 1 - p_{\text{-comp}} \).
Specification of Utilities

Let us first consider the characteristics of , the probability that the Commission enforces the goals of a directive. The numerator of the equation compares the Commission’s observed utility for conflict in the event of enforcement with its observed utility for non-enforcement resulting in a compliance deficit. Hence, the probability of enforcement increases with the level of the Commission’s observed utility of conflict relative to the compliance deficit.

Likewise, the numerator of the equation for expresses the difference between a member state’s observed expected utility for non-compliance and its observed utility for compliance. The member state’s observed expected utility for non-compliance captures the expectation for the outcomes of conflict by enforcement and compliance deficit, based on the member state’s belief of whether the Commission is willing to enforce the directive. The higher the member state’s observed expected utility for non-compliance, the higher is the probability that the member state will not comply with the goals of a directive.

The denominator of each equation is a variance term, reflecting the amount of uncertainty associated with each decision stage. As increases relative to the observable components, the uncertainty of the actors over their decisions increases. In contrast, when is small, the actors have more accurate information about the true utilities, which means that the enforcement model can become a game of perfect and complete information.

Derivation of Strategic Choice Probabilities

The derivation of equilibrium choice probabilities is based on the strategic random utility models shown in Figure 2.
The member state’s utilities for the three possible outcomes Transposition, Enforcement and Deficit are assumed to be:

\[ U_{MS}^*(\text{Transposition}) = U_{MS}(\text{Transposition}) + \pi_{MS1} \]

\[ U_{MS}^*(\text{Enforcement}) = U_{MS}(\text{Enforcement}) + \pi_{MS3} \]

\[ U_{MS}^*(\text{Deficit}) = U_{MS}(\text{Deficit}) + \pi_{MS4} \]

where \( U_{MS}^*(\cdot) \) is the true utility, \( U_{MS}(\cdot) \) is the observed component, and \( \pi_{MSj} \) is a random component that is private information to the member state.

The Commission’s utilities for the two possible outcomes Enforcement and Deficit are assumed to be:

\[ U_{Com}^*(\text{Enforcement}) = U_{Com}(\text{Enforcement}) + \pi_{Com3} \]

\[ U_{Com}^*(\text{Deficit}) = U_{Com}(\text{Deficit}) + \pi_{Com4} \]

Under the assumption that \( \pi_{ij} \) are i.i.d. \( N(0, \sigma^2) \) and that the member state and Commission are utility maximizer. The Commission will enforce the respective EU policy if \( U_{Com}^*(\text{Enforcement}) > U_{Com}^*(\text{Deficit}) \), and will back down otherwise.

\[ p_{RO} = \Pr[RO] = \Pr[U_{Com}^*(\text{Enforcement}) > U_{Com}^*(\text{Deficit})] \]

\[ = \Pr [U_{Com}^*(\text{Enforcement}) > U_{Com}^*(\text{Deficit})] \]

\[ = \Pr [U_{Com}(\text{Enforcement}) + \pi_{Com3} > U_{Com}(\text{Deficit}) + \pi_{Com4}] \]

\[ = \Pr [U_{Com}(\text{Enforcement}) - U_{Com}(\text{Deficit}) > \pi_{Com3} - \pi_{Com4}] \]
The member state’s choice probability is derived in the same way. The only difference is that, because the member state is uncertain whether the Commission will enforce the respective EU policy, the member state’s utility will be an expected utility.

The probability that member state will try to attack the Community legal order and not implement the previously adopted EU policy:

\[ p_{\sim \text{comp}} = \Pr[\sim\text{Transposition}] = \Pr[U_{MS}^*(\sim\text{Transposition}) > U_{MS}^*(\text{Transposition})] \]

\[ = \Pr[p_{RO}U_{MS}^*(RO) + p_{\sim RO}U_{MS}^*(\sim RO) > U_{MS}^*(\text{Transposition})] \]

\[ = \Pr[p_{RO}(U_{MS}(\text{Enforcement}) + \pi_{MS3}) + p_{\sim RO}(U_{MS}(\text{Deficit}) + \pi_{MS4}) > U_{MS}(\text{Transposition}) + \pi_{MS1}] \]

\[ = \Pr[p_{RO}U_{RO}(\text{Enforcement}) + p_{\sim RO}U_{MS}(\text{Deficit}) - U_{MS}(\text{Transposition}) > \pi_{MS1} - p_{RO}\pi_{MS3} - p_{\sim RO}\pi_{MS4}] \]

\[ = \Phi \left[ \frac{p_{RO}U_{MS}(\text{Enforcement}) + p_{\sim RO}U_{MS}(\text{Deficit}) - U_{MS}(\text{Transposition})}{\sqrt{\sigma^2(1 + p_{RO} + p_{\sim RO})}} \right] \]
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Table 1: Theoretical Effects of Costs and Probability of Success on Outcomes

<table>
<thead>
<tr>
<th>Commission’s enforcement condition</th>
<th>Member state’s compliance condition</th>
<th>Equilibrium outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>$p \geq 1 - C_{Com}$</td>
<td>For all</td>
<td>Deficit</td>
</tr>
<tr>
<td>$p &lt; 1 - C_{Com}$</td>
<td>$p \geq C_{MS}$</td>
<td>Enforcement</td>
</tr>
<tr>
<td>$p &lt; 1 - C_{Com}$</td>
<td>$p &lt; C_{MS}$</td>
<td>Transposition</td>
</tr>
<tr>
<td>Theoretical concepts</td>
<td>Operationalization</td>
<td>Min</td>
</tr>
<tr>
<td>----------------------</td>
<td>--------------------</td>
<td>-----</td>
</tr>
<tr>
<td>Sanctioning costs</td>
<td>Member state's disagreement</td>
<td>-0,96</td>
</tr>
<tr>
<td></td>
<td>Commission's agreement</td>
<td>-1,12</td>
</tr>
<tr>
<td></td>
<td>Member state's saliency</td>
<td>-1,25</td>
</tr>
<tr>
<td></td>
<td>Commission's saliency</td>
<td>-1,15</td>
</tr>
<tr>
<td>Probability of enforcement success</td>
<td>Diversity of states' interests</td>
<td>-1,35</td>
</tr>
<tr>
<td>Control variables</td>
<td>Discretionary power</td>
<td>1,00</td>
</tr>
<tr>
<td></td>
<td>Issue of timeliness</td>
<td>0,00</td>
</tr>
<tr>
<td></td>
<td>Interest group index</td>
<td>-1,73</td>
</tr>
<tr>
<td></td>
<td>Type of directive</td>
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</tr>
<tr>
<td>Control variables</td>
<td>Number of provisions</td>
<td>-1,30</td>
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<tr>
<td></td>
<td>Delegation ratio</td>
<td>-1,85</td>
</tr>
<tr>
<td></td>
<td>Bureaucratic efficiency</td>
<td>-3,01</td>
</tr>
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</table>
Table 3: Strategic Probit Regression Based on the Model in Figure 3

<table>
<thead>
<tr>
<th></th>
<th>$U_{MS}$ (Enforcement)</th>
<th>$U_{MS}$ (Deficit)</th>
<th>$U_{Com}$ (Enforcement)</th>
<th>$U_{MS}$ (Transposition)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Member state's disagreement</td>
<td>0.586**</td>
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<td></td>
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<tr>
<td></td>
<td>(0.246)</td>
<td></td>
<td></td>
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<tr>
<td>Member state's saliency</td>
<td>-0.080</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.265)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commission's agreement</td>
<td>-0.619</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.631)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commission's saliency</td>
<td>3.836**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1.328)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diversity of states' interests</td>
<td>0.282</td>
<td></td>
<td>-3.849**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.346)</td>
<td></td>
<td>(1.276)</td>
<td></td>
</tr>
<tr>
<td>Discretionary power</td>
<td>-0.743**</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>(0.313)</td>
<td></td>
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<tr>
<td>Issue of timeliness</td>
<td>4.231</td>
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<tr>
<td></td>
<td>(3.366)</td>
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<td></td>
</tr>
<tr>
<td>Type of directive (1 - CM &amp; EP)</td>
<td>1.063*</td>
<td></td>
<td>0.191</td>
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<tr>
<td></td>
<td>(0.566)</td>
<td></td>
<td>(0.744)</td>
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<tr>
<td>Domestic interest group</td>
<td>0.232</td>
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<td>0.670**</td>
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<tr>
<td>influence</td>
<td>(0.228)</td>
<td></td>
<td>(0.285)</td>
<td></td>
</tr>
<tr>
<td>Number of major provisions</td>
<td></td>
<td>-0.554***</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.143)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delegation ratio</td>
<td></td>
<td>-0.352**</td>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td>(0.174)</td>
<td></td>
<td></td>
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<tr>
<td>Bureaucratic efficiency</td>
<td></td>
<td>0.134</td>
<td></td>
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<td></td>
<td></td>
<td>(0.139)</td>
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<tr>
<td>Constant</td>
<td>-0.294</td>
<td>0.984</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>(0.590)</td>
<td>(0.598)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>299</td>
<td></td>
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<td></td>
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<tr>
<td>Log Likelihood</td>
<td>-197.607</td>
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<tr>
<td>PCP Outcomes</td>
<td>71.24</td>
<td></td>
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<tr>
<td>PCP Transposition</td>
<td>86.15</td>
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<tr>
<td>PCP Enforcement</td>
<td>48.24</td>
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<tr>
<td>PCP Deficit</td>
<td>21.05</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Standard error in parentheses. Significant level: **$p<0.001$; **$p<0.05$; *$p<0.10$
Figure 1: Game Tree of the Compliance and Enforcement Model

```
Member State
  /    \    
Compliance  ~Compliance
  / \    / \    
|p_com|  |p_~comp|

Transposition_{MS} = 0
Transposition_{Com} = 1

Commission
  / \    / \    
Enforcement  ~Enforcement
  / \    / \    
|p_ro|  |p_~ro|

Enforcement_{MS} = p - C_{MS}
Enforcement_{Com} = (1 - p) - C_{Com}

Compliance Deficit_{MS} = 1
Compliance Deficit_{Com} = 0
```
Figure 2: The Compliance Model with Uncertainty Concerning Utilities

- Member State
  - Compliance: $p_{comp}$
  - ~Compliance: $p_{-comp}$
  - $U_{MS}(\text{Transposition}) + \pi_{MS1}$
- Commission
  - Enforcement: $p_{RO}$
  - ~Enforcement: $p_{-RO}$
  - $U_{MS}(\text{Enforcement}) + \pi_{MS3}$
  - $U_{Com}(\text{Enforcement}) + \pi_{Com3}$
  - $U_{MS}(\text{Compliance Deficit}) + \pi_{MS4}$
  - $U_{Com}(\text{Compliance Deficit}) + \pi_{Com4}$
Figure 3: Specification of Utilities in Terms of Regressors

\[ U_{M3}(\text{Transposition}) = X_{13} \beta_{11} \]

\[ U_{M3}(\text{Enforcement}) = X_{13} \beta_{13} \]

\[ U_{\text{Com}}(\text{Enforcement}) = X_{23} \beta_{23} \]

\[ U_{M3}(\text{Compliance Deficit}) = \beta_{14} \]

\[ U_{\text{Com}}(\text{Compliance Deficit}) = 0 \]
Figure 4: Enforcement and Compliance Deficit across Member States

Note: While the y axis provides the number of directives for which the non-complying member states received an infringement procedure the x axis provides the number of compliance failures for which the Commission failed to enforce the respective directive. The size of the circle symbol represents the overall level of compliance failure by each member state.
Figure 5: Effects of Major Explanatory Variables

a) Effects of the diversity of states’ interests on the probability of enforcement

b) Effects of the diversity of states’ interests on the probability of compliance deficit

c) Effects of member state’s disagreement on the probability of enforcement

d) Effects of member state’s disagreement on the probability of compliance deficit

e) Effects of Commission’s saliency on the probability of enforcement

f) Effects of Commission’s saliency on the probability of compliance deficit